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(FILE 'HOME' ENTERED AT 13:37:39 ON 12 MAY 2003)

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SEA CELLULASE

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L1 QUE CELLULASE

FILE 'CAPLUS, BIOSIS, SCISEARCH, BIOTECHDS, CABA, PASCAL, AGRICOLA,
LIFESCI, EMBASE, MEDLINE, BIOTECHNO' ENTERED AT 13:39:22 ON 12 MAY 2003

L2 575 S L1 AND (TRUNCAT? OR N-TERMINAL DELET?)
L3 27 S L2 AND THERMOSTAB?
L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
L5 6 S L4 AND N-TERMINAL
L6 6 DUP REM L5 (0 DUPLICATES REMOVED)
L7 10 S L1 AND (N-TERMINAL DELET?)
L8 3 DUP REM L7 (7 DUPLICATES REMOVED)
L9 577 S L1 AND (TRUNC?)
L10 147 S L9 AND N-TERMINAL
L11 12 S L10 AND THERMOST?
L12 6 DUP REM L11 (6 DUPLICATES REMOVED)
L13 0 S L1 AND (N-TERMINAL(W) TRUNC?)

L8 ANSWER 3 OF 3 PASCAL COPYRIGHT 2003 INIST-CNRS. ALL RIGHTS RESERVED.

DUPLICATE

ACCESSION NUMBER: 1991-0332414 PASCAL
TITLE (IN ENGLISH): Modification of the properties of a Ruminococcus albus
endo-1,4.beta.-glucanase by gene truncation
AUTHOR: OHMIYA K.; DEGUCHI H.; SHIMIZU S.
CORPORATE SOURCE: Nagoya univ., school agriculture, dep. food sci.,
Nagoya 464-01, Japan
SOURCE: Journal of bacteriology, (1991), 173(2), 636-641, 15
refs.
ISSN: 0021-9193 CODEN: JOBAAY

DOCUMENT TYPE: Journal

BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: United States

LANGUAGE: English

AVAILABILITY: INIST-2041, 354000019764640270; INIST,
354000019764640270

AB An EgI with a 15-amino-acid **N-terminal deletion** exhibited higher activity at lower pH and temperature compared with the activity of the original EgI. The EgIs with 59- and 75-amino-acid deletions from the N and C terminals, respectively, had no activity, indicating that both terminal moieties are essential for enzyme activity

L12 ANSWER 6 OF 6 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI
ACCESSION NUMBER: 1991-02961 BIOTECHDS
TITLE: Low-temperature acid **cellulase** gene;
Ruminococcus albus gene cloning and expression; cellulose
biosynthesis

PATENT ASSIGNEE: Shimizu S
PATENT INFO: JP 02265486 30 Oct 1990
APPLICATION INFO: JP 1989-86714 7 Apr 1989
PRIORITY INFO: JP 1989-86714 7 Apr 1989
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
OTHER SOURCE: WPI: 1990-366319 [49]

AB A slightly acidic low-temp. recombinant **cellulase** is produced by isolating a DNA fragment encoding neutral **cellulase** (EC-3.2.1.4) from Ruminococcus albus, partial modification of the gene, insertion into a plasmid vector, transformation of host cells, and recovery of the new enzyme from the culture. Partial modification preferably entails construction of a **truncated** protein, which does not have the N-terminal 15-24 amino acids of the mature protein, and also has some amino acids deleted from the C-terminal. The **cellulase** has the following properties: decomposition of CM-cellulase and other cellulose types, with lowering in viscosity; specificity for CM-cellulose and other types; an optimum pH of 5.5-6.0; a stable pH range of 5-7 (37 deg, 10 min), retaining 80% or more CM-cellulase activity; an optimum temp. of 20-35 deg at pH 6.8; **thermostability** at 40 deg, pH 6.8 for 1 hr (retaining over 80% activity); and a mol.wt. of 35,000 +/- 5,000 (SDS-PAGE). The **cellulase** is useful for cellulose degradation, and also has cellulose biosynthesis activity, making it useful for cellulose production in the wood industry. (11pp)